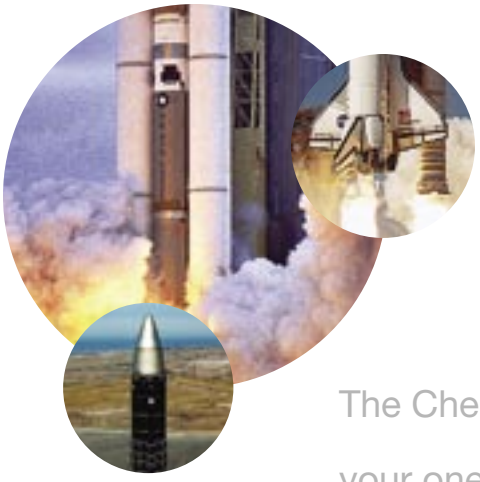

Chemical Propulsion Information Analysis Center

CPIAC

The Chemical Propulsion Information Analysis Center (CPIAC) is your one-stop shopping center for propulsion information. We are the national clearinghouse for world-wide information, data, and analysis on chemical, electrical, nuclear, and advanced-propulsion concepts for missile, space, and gun-propulsion systems. The Chemical Propulsion Information Network (CPIN) provides secure, easy, online access to the most comprehensive databases of unclassified technical reference data available. The CPIAC library contains more than 125,000 documents dating from the 1940s. CPIAC also provides technical and administrative support to the Joint Army-Navy-NASA-Air Force (JANNAF) Interagency Propulsion Committee and its eleven subcommittees.

CPIAC offers a wide variety of information products and services, including Web-accessible, comprehensive, searchable literature and technical-paper databases; technology assessments; propulsion manuals; propulsion computer codes; meeting administration and proceedings; and responses to user technical and bibliographic inquiries.

The Propulsion Information Retrieval System (PIRS), developed by CPIAC and available on CD-ROM, is a combined database and search-and-retrieval system of approximately 96,000 document citations that relate to missile, space, and gun-propulsion research and technology.

Three databases are currently available to CPIN users through the convenience of the Internet and a 128-bit SSL connection. The Web-enabled version of CPIAC's Rocket Motor Electronic Database (RMED), formerly available on CD-ROM, is the most comprehensive source of unclassified technical reference data on over 400 qualified, operational, and historical US solid propellant rocket motor systems. The Rocket Propulsion Test Facility (RPTF) database includes comprehensive data on nearly 300 liquid, solid, and hybrid system test facilities that range from component test to full stage integration and firing test stands. Individual test stand records are included for four NASA centers, five Department of Defense testing

sites, and eight Industry test facilities. The Solid Propellant Database (SPD) represents the electronic evolution of the 40+ year old legacy core product, the CPIA/M2 Solid Propellant Manual. SPD is the most comprehensive source of detailed technical information on qualified and fielded propellants in US propulsion systems.

The CPIAC Propulsion Manuals provide timely, valuable engineering and technical data for liquid rocket motors, liquid propellants, solid and liquid propellant ingredients, and airbreathing propulsion.

CPIAC maintains and distributes several government sponsored standard propulsion computer codes for delivered performance prediction; grain regression prediction; internal motor flowfields characterization; exhaust plume characterization; and spectral signatures.

CPIAC's Technical Inquiry service provides evaluations and summaries of RDT&E results that may be used by CPIAC customers to solve problems in a specific technical area. Each year, we respond authoritatively to about 300 technical inquiries from the propulsion community; 8,500 responses are available in a searchable database to ensure accurate, thorough and complete responses to current user inquiries.

The CPIAC's Bibliographic Inquiry service provides rapid, focused, in-depth compilations of the available literature on selected topic areas of interest to the propulsion community.

The CPIAC Technology Reviews and Briefings provide propulsion scientists and engineers with state-of-the-art summaries and objective assessments of emerging technology trends and developments. The recent state-of-the-art review, *Composite Rocket Motor Case Technology for Tactical Missiles*, (CPTR 77), is the result of a multi-year effort to compile and examine recent and historical efforts to develop and mature composite case technologies for tactical missile applications. This public release document is available on CD-ROM to the US and international community.

TECHNOLOGY ASSESSMENT AND ANALYSIS

As a knowledgeable and impartial voice, CPIAC can assist sponsors in focusing increasingly limited research and development funding by identifying key propulsion system requirements through workshops, symposia, technical surveys, and technology and technology transfer assessments.

PROPULSION ORGANIZATION AND MEETING SUPPORT

Meeting administration provides technical, administrative, consulting, and logistics support for propulsion-related technical meetings, workshops, conferences, and symposia. All requisite functions are managed, including negotiating contracts with speakers, processing registrations for attendees, arranging for travel and lodging for invited speakers, providing meeting facilities, preparing course notebooks and proceedings, planning and providing for food functions, and collecting evaluation data from attendees. We are particularly adept at providing classified meeting services.

CONTACT US:

CPIAC
10630 Little Patuxent Parkway,
Suite 202
Columbia, MD 21044
http://cpiac.jhu.edu
cpiac@cpiac.jhu.edu

Allan Bjerkaas
Interim Director
Tel: (410) 992-7300
ext. 203
bjerkaas@jhu.edu

Thomas L. Moore
Deputy Director
Tel: (410) 992-9951
ext. 207
tmoore@jhu.edu